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EXAMINER	
THOMAS, MIA M	

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,822	FONDEUR ET AL.	
	Examiner	Art Unit	
	Mia M. Thomas	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 February 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is responsive to applicant's remarks received on 14 February 2008. Claims 1-11 are cancelled and Claims 12-22 are currently pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 12 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

At lines 5-8 of claim 12, the applicant recites the law of variation, with respect to (Z), impedance; (S), surface area; and f (Dt). The Examiner has assumed that f is a function and that t is a variable of time. When read in light of the specification, the applicant does not define "D". The applicant also does not define the function of (Dt) --- {f (Dt)}, in the claims nor in the specification. A person of ordinary skill in the art would not be able to choose a finite or restricted set of numbers (variables) to substitute into the function of (Dt) to obtain the same results yielded by the applicant's invention. Therefore, neither claim language nor specification fully supports the function of (Dt) in order to make/or use the invention.

Further, the Examiner has examined the specification to find that “D” is represented as a finger (see paragraph [0024]).

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

When read in light of the specification, for example, at line 4 of claim 12, the term “various points” in considered indefinite.

Does the meaning of “various points” correspond with “various points” on the sensor or “various points” on the finger, or “various points” on the graph related to the fingerprint measurements?

Does the term “various points” means 2 (two) specific points that are being measured or are there multiple points (more than 3) into which the measurements are being considered? In other words, are the measurements of impedance at claim 12 comprised of 2 or more points? The term "various points” is vague and indefinite as one of ordinary skill in the art could measure 2 or more points and yield predictable results since each measurement will be varied from point to point.

For examination purposes, the Examiner will interpret Claim 12 as follows:

12. (Currently Amended) A method of determining a living character of a finger of a person carrying a fingerprint, comprising the steps of:

(a) making measurements of impedance (Z) at multiple (more than 3 (three)) points of the finger, on which the person carrying the fingerprint, is measured by means of electrodes; and

(b) determining whether the measurements of impedance (Z) satisfy a law of variation of the impedance measured by the electrodes as a function of the surface area (S) of the electrodes covered by the fingerprint, such as Z= f(Dt) (S), said law of variation being related to the finger carrying the fingerprint, wherein D is representative of the living character's finger and t is an element of time.

6. Claims 12 is also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites “an element”. According to www.m-w.com, an element is any of the four substances air, water, fire, and earth formerly believed to compose the physical universe. When read in light of the specification, it is uncertain if applicant is referring to a “user’s finger” as an element by way of literal translation or if the determination of a living character is an “element of a user” to be carried out in a fingerprint sensor and the

execution thereof. In other words, as best understood by the Examiner, at line 1 of claim 12, the applicant is referring to "an element" as being related to the living character (a person, or human being/living- not counterfeit) and the “person” or “living character” is the “element” carrying the fingerprint as taken in context by the amended claim language.

Claims 12, 17, 19, 20 and 21 recites the limitation *"the living character"* at page 2, line 1 of claim 12, in the preamble for example. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 also recites the limitation *"the impedances"* at page 3, line 5.There is insufficient antecedent basis for this limitation in the claim.

Claims 18 is also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

At claim 18, the claim recites “[a] smaller surfaces [are] less distance from each other than the two electrodes with larger surfaces”?

How are far is less distant from each other? Could this distance be a matter of meters, yards or is the distance based on an optical realm of measurement with respect to the surface area of the electrodes?

This claim is rejected as been indefinite.

Claim Suggestions

It appears that several of the claims are a literal translation of a French priority documents. There are several missing articles in some of the claim language. For example, at claim 17, Examiner suggests that the applicant alter the language to read as follows: ***Note: These are mere suggestions by the Examiner and in no way does this change the scope of the claim language.

17. (Currently Amended) A fingerprint sensor adapted to determine a living character of a fingerprint carried by a person, the sensor comprising:
(a) at least four electrodes, wherein at least two of the said four electrodes have smaller surfaces that the other two of the said four electrodes with larger surfaces.

(b) means for measuring impedances at least between on the one hand, two electrodes with smaller surfaces and on the other hand, two electrodes with larger surfaces, and…

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 12-16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Setlak (US 5,963,679).

Regarding Claim 12: (currently amended) As best understood by the Examiner, Setlak discloses a method of determining the living character of an element carrying a fingerprint ("The present invention relates to the field of personal identification and verification, and, more particularly, to the field of fingerprint sensing and processing." at column 1, line 6), comprising the step of:

(a) making measurements of impedance at various points on the element by means of electrodes ("... features according to the invention are provided by a fingerprint sensor comprising an array of electric field sensing electrodes, a dielectric layer on the electric field sensing electrodes with the dielectric layer for receiving a finger adjacent thereto..." at column 2, line 64; Now with specific reference to Figure 7, the various points that are measured by means of electrodes as exhibited at Figures 4-6, the active elements or measurements of impedance which result from one or more active semiconductive layers, for example at numerals 65 and 66 will be measured further to define further limitations of measurements of impedance);

and (b) determining whether the impedance measurements (Z) satisfy a law of variation of the impedance measured by the electrodes as a function of the surface area (S) of the electrodes covered by the element such as Z=f Dt (S), ("With specific regards to Figures 8-10, "...the sensing elements 30a operate at very low currents and at very high impedances." Once that data is gathered and processed, the impedance measurements are processed at Figure 24, numeral 200. Figure 24, numeral 202 is a low-level

description of the law of variation being satisfied throughout the processing and determination of the method as claimed. For further support, in other terms, a first capacitor 83 (FIG. 9) is defined between the excitation electrode 71 and the sensing electrode 78, and a second capacitor 85 is defined between the finger skin 79 and ground." at column 7, line 22);

the law of variation being related to the element carrying the fingerprint as a function of the surface area (S) of the electrodes covered by the element such that Z=f(Dt) (S) "For example, the output signal from each sensing electrode 78 is desirably about 5 to 10 millivolts to reduce the effects of noise and permit further processing of the signals. For clarification, Examiner is citing the surface area to be associated with Figure 6, numeral 78, the measurement of the diameter of the electrode (sensing element) with further clarification to say "The approximate diameter of each sensing element 30a, as defined by the outer dimensions of the shield electrode 80, may be about 0.002 to 0.005 inches in diameter." at column 7, line 33).

The law of variation as stated by the applicant relates simply to the finger of the "living character" with respect to the function of surface area and time. The measurements of impedance are also measured across the electrodes associated with the finger.

Setlak may not expressly state a "law of variation", however, Setlak does however teach that his invention "comprised an array of electric field sensing electrodes...with a dielectric layer for receiving a finger...drive means for applying an electric field drive signal to the sensing electrodes and adjacent portions of the finger so as to produce an output signal. Additionally, another signification aspect of the invention addresses the

difficulty of variation in finger conductivity and contamination. (Further see column 2, lines 60-column 4 lines 35).

The claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Since Setlak, does not specifically use the term “law of variation”, he does however at column 3,lines 37-44 teach/disclose the significant aspects of his invention with relation to impedance (electric) measurements and surface area of the finger as a function of measuring output signals.

Therefore, the teaching methods of Setlak could have been substituted for the claimed elements of Claim 1 to obtain the specified elements of claim 1 with no change in there respective functions and yielded the same predictable results.

Regarding Claim 13: (original) Setlak discloses (a) measuring a first impedance value between two first electrodes with a predetermined surface area (Refer to Figure 5, numeral 30a)

(b) measuring a second impedance value between two second electrodes with a predetermined surface area (Please also refer to Figure 5, numeral 30a; “The sensor 30 includes a plurality of individual pixels or sensing elements 30a arranged in array pattern as shown perhaps best in FIGS. 4 and 5.” at column 6, line 39)

and (c) checking that the points defined by the first impedance value and second impedance value and the surface areas of the first and second electrodes belong to the same curve satisfying the said variation law (Refer to Figure 11, numeral 92 and 93).

Regarding Claim 14: (original) Setlak discloses (a) making a first measurement of impedance between two first electrodes with a first predetermined surface area and determining the curve satisfying the variation law (Refer to Figure 5, numeral 30a) (b) making a second measurement of impedance between two second electrodes with a second predetermined surface area (Please also refer to Figure 5, numeral 30a; "The sensor 30 includes a plurality of individual pixels or sensing elements 30a arranged in array pattern as shown perhaps best in FIGS. 4 and 5." at column 6, line 39) and (c) checking that the point defined by the second impedance measurement and second predetermined surface area values belong to an area of tolerance situated around the curve (Refer to Figure 11, numeral 92 and 93). It shall be noted, "An annularly shaped shield electrode 80 surrounds the sensing electrode 78 in spaced relation therefrom. As would be readily appreciated by those skilled in the art the sensing electrode 78 and its surrounding shield electrode 80 may have other shapes, such as hexagonal, for example, to facilitate a close packed arrangement or array of pixels or sensing elements 30a." at column 7, line 4).

Regarding Claim 15: (original) Setlak discloses wherein the second impedance measurement is made randomly between two electrodes of the same size and two electrodes of different sizes (Refer to Figure 5, numeral 30a, accordingly as stated

above, "the approximate diameter of each sensing element 30a, as defined by the outer dimensions of the shield electrode 80, may be about 0.002 to 0.005 inches in diameter." This variation can be randomly selected between any number of electrodes of the same size and /or with different sizes).

Regarding Claim 16: (original) Setlak discloses wherein the second impedance measurement is made alternately between two electrodes of the same size and between two electrodes of different sizes (Refer to Figure 7; "A relatively thick dielectric layer 67 will reduce the capacitance between these two structures and thereby reduce the current needed to drive the excitation electrode. The various signal feed through conductors for the electrodes 78, 80 to the active electronic circuitry may be readily formed as would be understood by those skilled in the art." at column 7, line 44).

9. Claims 17, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Setlak (US 6,067,368), hereinafter referred to as Setlak '368 in combination with Setlak (US 5,963,679).

Regarding Claim 17: (currently amended) Setlak '368 discloses a fingerprint sensor adapted to determine the living character of an element carrying a fingerprint, ("A fingerprint sensor includes an array of fingerprint sending elements and associated active circuits and an impedance matrix filter connected to the active circuits for filtering the signals." at abstract), the sensor comprising:

(a) at least four electrodes, at least two of which have smaller surfaces than two other with larger surfaces (Refer to Figure 3, numeral 30a or Figure 8, numeral 130);

(b) means for measuring the impedances at least between on the one hand two electrodes with small surfaces on the other hand two electrodes with larger surfaces (Refer to Figure 8, numeral 131),

and (c) means of checking that the impedances measured by the measuring means follow a predetermined law of variation of the impedance as a function of the surface area of the electrodes used for measurement, ("Filter control means may operate the switches 137 to perform processing of the signals generated by the active circuits 131. In one embodiment, the fingerprint sensing elements 130 may be electric field sensing electrodes 78, and the active circuits 131 may be amplifiers 73 (FIG. 2)." at column 8, line 66).

Specifically, Setlak teaches the law of variation being related to the element carrying the fingerprint "For example, the output signal from each sensing electrode 78 is desirably about 5 to 10 millivolts to reduce the effects of noise and permit further processing of the signals. For clarification, Examiner is citing the surface area to be associated with Figure 6, numeral 78, the measurement of the diameter of the electrode (sensing element) with further clarification to say "The approximate diameter of each sensing element 30a, as defined by the outer dimensions of the shield electrode 80, may be about 0.002 to 0.005 inches in diameter." at column 7, line 33).

The law of variation as stated by the applicant relates simply to the finger of the "living character" with respect to the function of surface area and time. The measurements of impedance are also measured across the electrodes associated with the finger.

Setlak may not expressly state a "law of variation", however, Setlak does however teach that his invention "comprised an array of electric field sensing electrodes...with a dielectric layer for receiving a finger…drive means for applying an electric field drive signal to the sensing electrodes and adjacent portions of the finger so as to produce an output signal. Additionally, another signification aspect of the invention addresses the difficulty of variation in finger conductivity and contamination. (Further see column 2, lines 60-column 4 lines 35).

The claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Since Setlak, does not specifically use the term “law of variation”, he does however at column 3,lines 37-44 teach/disclose the significant aspects of his invention with relation to impedance (electric) measurements and surface area of the finger as a function of measuring output signals.

It shall also be noted that although the configuration of the electrodes as disclosed at Figure 3 and Figure 8 respectively does not actually limit the actual size the electrode by presentation considering that he electrodes are not drawn to scale and that the block diagrams can represent any multitude of electrodes or sensing elements in multiple forms or dimensions.

Further, Setlak does not specifically disclose that the sensor comprises at least four electrodes, at least two of which have smaller surfaces than two other with larger surfaces, however, it would have been obvious to one of ordinary skill in the art to substitute one of the known "sensing elements" for another "sensing element" with a new or different configuration, as any number of sensing elements would have yielded predictable results at the time of the invention. For example, if the sensing element as disclosed at Figure 8, numeral 130 had a smaller variation of that element that comprised a smaller sensing element inside of the larger sensing element as shown at numeral 130, the substitution of that larger sensing element with the smaller element inside (meaning inside the sensing element or device) or attached (to the sensing element or device) would have been obvious.

Therefore, at the time of the invention, the skilled artisan would have been able to combine the teachings of Setlak '368 and Setlak to obtain the specified claimed elements of Claim 17, with no respective change in their functions and yielded a predictable result, thereby making this claim obvious in view of the elements taught and rejected above.

Regarding Claim 18: Setlak '368 discloses wherein the two electrodes with smaller surfaces are less distant from each other than the two electrodes with larger surfaces (Refer to Figure 11; "The approximate diameter of each sensing element 30a, as defined by the outer dimensions of the shield electrode 80, may be about 0.002 to 0.005 inches in diameter. ... provided for cooperating with the synchronous demodulator means 170 for synchronously demodulating signals at first and second phase angles (theta sub 1), (theta sub 2), generating an amplitude ratio thereof, and comparing the amplitude ratio

to a predetermined threshold to determine whether the object is a live fingerprint or other object. Accordingly, the synchronous demodulator 170 may be readily used to generate the impedance information desired for reducing spoofing of the sensor 30 by an object other than a live finger. The first angle (theta sub 1) and the second 92 may have a difference in a range of about 45 to 90 degrees, for example. Other angles are also contemplated by the invention as would be readily appreciated by those skilled in the art." at column 11, line 6).

Regarding Claim 22: Setlak '368 discloses an optical system producing an image of the fingerprint and determining the surface area of the electrodes not entirely covered by the fingerprint (Refer to Figure 3, numeral 30).

10. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hestnes (US 6,778,686 B1) in combination with Setlak (US 5,943,441), hereinafter referred to as Setlak '441 and further in view of Setlak (US 5,963,679).

Regarding Claims 19-21: Hestnes discloses a fingerprint sensor adapted to determine the living character of an element carrying a fingerprint ("The present invention relates to capacitive sensing of topological variations in the structure of an object. The invention particularly relates to a sensing device sensing topological variations in the structure of a finger or a fingertip, and to a so-called fingerprint recognition system." at column 1, line 10), the sensor comprising:

(a) a first set of four single-piece electrodes with identical large surfaces and a second set of two electrodes in the form of intersecting combs with identical surfaces less than the identical large surfaces ("...to each sensor element four digital signals are presented and to select the functionality of a sensor element, the same functionality for both the X and the Y selection lines have to be selected. This will be further described with reference to FIG. 4." at column 8, line 39; Additionally, "FIG. 7 is a figure similar to that of FIG. 6 showing an alternative sensing device 11. In this embodiment separate conducting means 12 is arranged to provide an ohmic contact with the finger 4. The separate conducting means 12 here acts a transmitting electrode. All sensor elements are selected to act either as receivers or to be inactive. The sensing device 11 can be programmed to operate either using direct sensing principle or using reflective sensing principles." at column 10, line 38);

(b) means for measuring the impedances between electrodes selected from the group consisting of: the two electrodes with smaller surfaces; two of the electrodes with larger surfaces; and one of the electrodes with smaller surfaces and one of the electrodes with larger surfaces ("According to this embodiment, the transmitting elements transmit pulsating voltage signals which are provided to the object, for example the finger, the variations in topological pattern of which is to be sensed, and the receiving elements measure the capacitively transferred signal which is reflected back to the sensing device. In other words, the device acts as a reflective sensor." at column 3, line 55);

Setlak' 441 teaches and (c) means of checking that the impedances measured by the measuring means follow a predetermined law of variation of the impedance as a function of the surface area of the electrodes used for the measurement (Refer to Figure 12, specifically, numeral 191).

Specifically, Setlak teaches the law of variation being related to the element carrying the fingerprint "For example, the output signal from each sensing electrode 78 is desirably about 5 to 10 millivolts to reduce the effects of noise and permit further processing of the signals. For clarification, Examiner is citing the surface area to be associated with Figure 6, numeral 78, the measurement of the diameter of the electrode (sensing element) with further clarification to say "The approximate diameter of each sensing element 30a, as defined by the outer dimensions of the shield electrode 80, may be about 0.002 to 0.005 inches in diameter." at column 7, line 33).

The law of variation as stated by the applicant relates simply to the finger of the "living character" with respect to the function of surface area and time. The measurements of impedance are also measured across the electrodes associated with the finger.

Setlak may not expressly state a "law of variation", however, Setlak does however teach that his invention "comprised an array of electric field sensing electrodes...with a dielectric layer for receiving a finger…drive means for applying an electric field drive signal to the sensing electrodes and adjacent portions of the finger so as to produce an output signal. Additionally, another signification aspect of the invention addresses the difficulty of variation in finger conductivity and contamination. (Further see column 2, lines 60-column 4 lines 35).

The claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Since Setlak, does not specifically use the term “law of variation”, he does however at column 3,lines 37-44 teach/disclose the significant aspects of his invention with relation to impedance (electric) measurements and surface area of the finger as a function of measuring output signals.

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art combine all the claimed elements as rejected above.

All the claimed elements were known in the prior art and one skilled in the art could have been combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Therefore, it would have been obvious to combine all the claimed elements to as rejected above to obtain the specified claim elements of Claim 19.

Specifically, **Regarding Claim 20:**

Hestnes in combination with Setlak (US 5,943,441), hereinafter referred to as Setlak ’441 and further in view of Setlak (US 5,963,679) discloses all the claimed elements of Claim 20.

However, Hestnes in combination with Setlak ‘441, and Setlak does not specifically disclose a first and second set of four-single piece electrodes with identical[ly] large surfaces.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to add together (or combine) a first set of four single-piece electrodes with [an] identically large surface with a second set of four single-piece electrodes with [an] identically large surface because a skilled artisan would readily appreciate that the settings and/or range of variation can be further manipulated and thus makes the fingerprint sensing and matching more reliable and also it would create a larger database for comparison of multiple images of the finger. (Setlak, "Background", column 1, line 11). The combination and / or substitution of a first and second set of four single piece electrodes would yield a predictable result to one of ordinary skill in the art.

Specifically, **Regarding Claim 21:**

Hestnes in combination with Setlak (US 5,943,441), hereinafter referred to as Setlak '441 and further in view of Setlak (US 5,963,679) discloses all the claimed elements of Claim 21.

However, Hestnes in combination with Setlak '441, and Setlak does not specifically disclose a first, a second and a third set of two-single piece electrodes with identical[ly] large surfaces.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to add together (or combine) a first and a second set of two single-piece electrodes with [an] identically large surface with a third set of two single-piece electrodes with [an] identically large surface because a skilled artisan would readily appreciate that the settings and/or range of variation can be further manipulated

and thus makes the fingerprint sensing and matching more reliable and also it would create a larger database for comparison of multiple images of the finger. (Setlak, "Background", column 1, line 11). The combination and / or substitution of a first, second and third set of two single piece electrodes would yield a predictable result to one of ordinary skill in the art.

Response to Arguments

11. Applicant's remarks/arguments filed 14 February 2008 have been fully considered and a complete response to those remarks is provided below.

Summary of Remarks:

1. Applicant's arguments with respect to claims 12-16 at page 6 (35 USC 102(b) as anticipated by Setlak (US 5,963,679)) have been considered but are moot in view of the new ground(s) of rejection.

2. Applicant's arguments with respect to claims 17, 18 and 22 at page 6 and 7 (35 USC 103(a) as being unpatentable over Setlak (US 6,067,368)) have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments with respect to claims 19-21 at page 7 (35 USC 103(a) as being unpatentable over Hestes (US 6,778,686) in combination with Setlak (US 5,943,441)) have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,314,195	US 6,282,304	US 6,647,133
US 6,438,257	US 6,633,656	US 5,920,640
US 6,052,475	US 6,175,641	US 6,333,989
US 6,292,576	US 5,673,041	US 5,5864,296

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mia M. Thomas whose telephone number is (571)270-1583. The examiner can normally be reached on Monday-Thursday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on 571-272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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